Integrated Ambulatory Care Resource Scheduling in Oncology

Farideh Majidi, M.S., John P. Enterline, M.S., Gloria Stuart
Michael Herman, Ph.D., Linda Langsdale, Lisa Lattal Ogorzalek, M.H.A, J.D.
The Johns Hopkins Oncology Center, Baltimore, Maryland 21287

In a modern managed-care environment, the scheduling of ambulatory care activities must be viewed as a series of closely related activities rather than a group of unique and independent events. These activities must be sequenced in a logical manner, and linked with a variety of information on other clinical, operational, and administrative activities. This article focuses on such an integrated scheduling system which supports the ambulatory care services at the Johns Hopkins Oncology Center.

INTRODUCTION

One of the many ancillary support applications developed around the OCIS decision-support data structure is an OPD scheduling and resource management system [1]. In fact, the OPD system is itself a operational decision-support system which uses data from other clinical and ancillary systems in the Oncology Center. Rarely does a patient in Oncology have a single event scheduled on a single day which does not relate to a variety of other information (Figure 1). Approximately 70,000 patient visits are scheduled and coordinated through this system annually. A great many of these visits involve multiple related appointments on the same day. In general, a scheduled event has close relations with other scheduled events, outcomes of clinical tests, clinical progress, available resources, clinical protocol requirements, and even events scheduled on other visits.

The ambulatory care component of the Oncology Center consists of four physically and logically unique clinics: Medical Oncology, Pediatric Oncology, Radiation Oncology, and a Medical Oncology consultation clinic. The ability to communicate and share data in real time is essential in this distributed environment. Patients frequently have appointments in multiple Oncology clinics during the same Oncology visit. Each of these clinics has a core of scheduling requirements which are identical, combined with an assortment of requirements which are unique to the clinic.
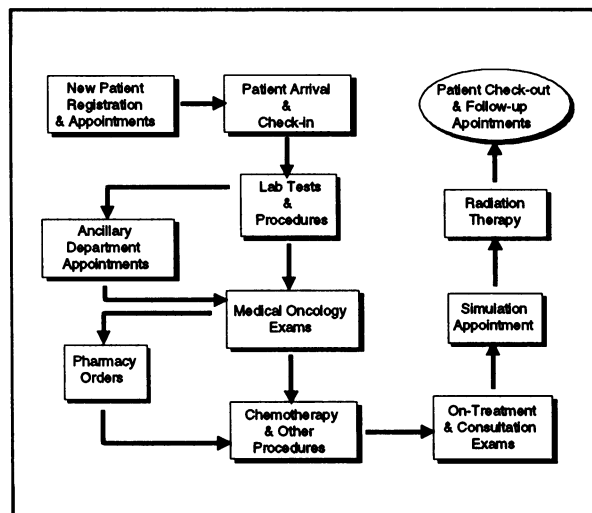

Figure 1. Operational Flow of Oncology Ambulatory Care Services.

The operational flow and management of outpatient services within Oncology are defined and conducted through this system. Patients, care providers, and ancillary support personnel know what to expect, and when it is expected. Resources are used to the greatest extent possible. All procedure and charge data are automatically collected in a complete, accurate, and timely manner. Additionally, this system provides a means of communication with other ancillary and clinical resources which are essential in the effective and efficient treatment of ambulatory patients. Such areas include the pharmacy system, blood product systems, inpatient services, laboratory systems, research systems, and other clinic systems. The computerized system which supports these resource scheduling activities is presented on-line in this demonstration.

REFERENCES

1.   Enterline, J.P., Majidi, F.M., Ogorzalek, L.L., Stuart G.J. Patient-Centered Ambulatory Care Scheduling. Healthcare Information Management. Vol. 7, No. 3, pp. 33-38, Summer 1993.